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ABSTRACT

This paper agrees that there are inadequacies in school desegregation research and suggests strategies for improving its quality and availability as well as improving current educational policies. It is suggested that the interaction of power and resources determines the post-desegregation changes in school policies. The effects of desegregation on various levels of achievement among white and minority students, and on teacher attitudes toward minorities are also discussed. In the area of racial relations, questions concerning the nature of contact among students, the effects of ability grouping and multicultural programs, and the race and sex of students and teachers are identified as the most important issues upon which further research is needed. Also examined are the assets and weaknesses of sociometric measures, attitude scales, and self-reports of behavior in measures of racial contact, racial tension, and racial attitudes. Other topics addressed include research on school discipline, desegregation and Hispanics, the problem of research costs and the utility of secondary analysis, and research on the role of principal and key variables in the study of desegregation processes and outcomes. A bibliography is appended. (JCD)

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ASSESSMENT OF CURRENT KNOWLEDGE ABOUT THE EFFECTIVENESS OF SCHOOL DESEGREGATION STRATEGIES

VOLUME II

AN AGENDA FOR FURTHER RESEARCH ON DESEGREGATION STRATEGIES

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UD 022 073

Preface

This volume is one of nine resulting from the Assessment of Effective Desegregation Strategies Project (hereafter referred to as the Project). The Project was financed with funds provided by the Office for Civil Rights (OCR) of the U.S. Department of Education and administered by the National Institute of Education (NIE).*

The primary purpose of the Project has been to identify what is known about strategies that are effective in desegregating school systems. A secondary objective of the Project is to facilitate further research on this topic. The Project will be successful if policy makers and practitioners use its findings, and the subsequent knowledge from research to which the project contributes, to more effectively racially desegregate the nation's schools.

There are several potential goals of desegregation and these may be the terms in which effectiveness is measured. This Project defined an effective strategy in one of four general ways:

1. The acceptance and support of desegregation by parents and the community.
2. The reduction of racial isolation and the avoidance of segregation among public schools (white flight and nonentry) and within schools (unnecessary ability grouping, push-outs, etc.).
3. The development of better race relations among students.
4. The improvement, or at least the continuance, of academic achievement.

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* This report was prepared under Contract No. NIE-R-79-0034.

The Project involved several different but interrelated activities:

1. A comprehensive review of the empirical research (see Volume V).
2. A review of the qualitative literature on school desegregation, including studies surveying the opinions of practitioners and policy makers (see Volume VI).
3. An analysis of ten key court decisions (see Volume VII).
4. Interviews with local and national experts on school desegregation (see Volume VII).
5. A synthesis of the information gathered in activities 1-4 (see Volume I).
6. A review of actions by state governments and interviews with state officials (see Volume VIII).
7. An agenda for future research to determine the effectiveness of school desegregation strategies.
8. The design of a multicommunity study to determine the factors that account for the effectiveness of school desegregation (see Volume III).
9. A guide to resources that those charged with implementing desegregation might find helpful (see Volume IV).
10. A comprehensive bibliography of books, articles, papers, documents and reports that deal with desegregation strategies related to the four general goals outlined above (see Volume IX).

These several activities were conducted by a team of researchers from several universities and organizations. The Project, which was managed by Willis D. Hawley with the assistance of William Trent and Marilyn Zlotnik, was initially based at Duke University's Institute of Policy Sciences and Public Affairs. Midway during its 19 month life, the Project was moved

to Vanderbilt University's Institute for Public Policy Studies. The members of the Project team were:*

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The conclusions reached in the several volumes are those of the named authors. Neither the NIE or OCR necessarily supports the findings of this Project.

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* Affiliations are for the period during which these persons participated in the study.

AN AGENDA FOR FURTHER RESEARCH ON DESEGREGATION STRATEGIES

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AN AGENDA FOR FURTHER RESEARCH ON DESEGREGATION STRATEGIES

Robert L. Crain

Willis D. Hawley

Introduction

There are, of course, countless topics which are worthy of further research. A long list of such topics might be developed. We choose not to create another such menu. Our appetite runs instead to issues that engage more or less fundamental questions about why events occur in desegregated schools and communities and how and why these events affect students, schools, and communities. In other words, what "works," under what conditions, and why? Moreover, our suggestions for research priorities reflect a conviction that the lessons one can learn from studying desegregation can often help in understanding more general educational, social, organizational and political processes and their consequences. It is important to develop a clear picture of what we are attempting to accomplish through this agenda, since research on desegregation has often not had that clear a sense of its own goals.

The end product of the proposed research will be targeted to persons who will make and implement policy decisions. What is communicated to them may be highly specific advice or it may be a more general way of understanding an important problem. Usually, technically sophisticated research is designed and conducted by persons who see other researchers as the most significant judges of their work. But research that is aimed at influencing policy needs to be developed and presented with policy makers and practitioners as the consumers. Moreover, it is important to bear in mind to what level of policy maker the research will be directed. As a general rule, federal officials in the Department of Education who fund

most desegregation research have relatively little direct impact upon the details of educational policy in school systems. They may be in a position to influence the total amount of money school districts receive, or to influence to a limited extent whether there will be funding for projects in a particular general area; but they're not in a position to influence the details of that policy.

In the case of school desegregation, there are seven different audiences of persons who can either create or influence desegregation policy. These are:

a. the plaintiffs in school desegregation suits and their lawyers,

b. judges,

c. school administrators,

d. classroom teachers,

e. parents and other citizens,

f. federal and state program administrators,

g. federal, state and local legislators.

Each of these seven groups has influence over certain aspects of educational policy, but their power differs depending upon the issue and their interests differ as well. The task of communicating all the information that each group needs, written in a form that that group can most easily utilize, is an awesome one and it is no surprise that we have not done very well in informing these groups. For example, plaintiffs' lawyers and judges have a network of law journals available to them, but these journals contain little information about educational issues or alternative educational programs. Most books written on education are aimed at school teachers and students in schools of education rather than at school administrators, simply because there is a larger market available

for publishing in these areas. A great deal of written material is directed at federal policy administrators in the form of research reports, etc., but in many ways this audience has less influence on the details of educational policy in individual schools than any of the other five. Federal agencies can decide how much money should be spent, but the connection between appropriation and expenditure and what happens in the classroom is tenuous. The Department of Education is well aware of this. The networks of regional laboratories and general assistance centers maintained by federal funds are designed to pass information more directly to local school officials. Thus, we do not mean to imply that nothing is being done about this problem but only that in the design of any research and development strategy, a great deal of attention must be paid to the question of how the conclusions of the research are converted into action in the real world.

There are well over 1,000 articles, books and circulated papers which present some form of empirical evidence on school desegregation. Much more is known today about the effects of desegregation on students and communities (Hawley, 1981) than was known only a few years ago (St. John, 1975; Levin and Hawley, 1975). Still, most of the things we "know" we only know in a tentative and partial sense; many important questions about why things happen and what consequences they have remain unanswered. Indeed, some important issues remain virtually unstudied.

We want to emphasize that, unlike some efforts to give direction to social science research, this paper does not present a review of the desegregation literature. Several such reviews have been completed (Weinberg, 1977; Hawley, 1981; Hawley, forthcoming) and others are in

progress that will encompass most of the literature between them.* However, as we proceed, we will provide a brief overview of the substantive character of the existing research.

The primary purposes of this paper are to identify 1) some of the reasons school desegregation research has yielded less knowledge than one might expect from the level of energy that has been expended, 2) some of the issues that seem most important to pursue in order to improve the effectiveness of desegregation and related policies, and, more generally, broaden the knowledge base we have about education, and 3) some general strategies for improving the quality and productivity of desegregation research.

Some Sources of Confusion and Inadequacy in the Existing Research

Many efforts to synthesize research on desegregation seem to lead some people to conclude that the evidence is so mixed and/or contradictory that one can draw no reliable conclusions from it. Such efforts have led others to conclude that desegregation has no consistent benefit. The last conclusion, more often than not, is considered reason to withdraw or withhold support from desegregation.

Syntheses of more recent research (Hawley, 1981) provides greater clarity and a greater sense of confidence that desegregation can be effective in a number of ways. Still, there are not many definitive answers to be found. One reasonable explanation for the apparent ambiguity of much of the research is that the effects of desegregation

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*Weinberg has just completed the revision of his 1977 review of the literature for the National Institute of Education. For reviews of the empirical research on desegregation in the specific areas of community response, race relations, academic achievement and resegregation, see Volume V of this Project.

vary enormously from community to community and from school to school. To say this is but to suggest that research has not captured the complexity of the process and the factors that affect different types of outcomes.

Most of the shortcomings of desegregation research can be traced to four characteristics of the existing studies: 1) the virtual absence of relatively comprehensive conceptual and theoretical frameworks, 2) methodological weaknesses, 3) inappropriate measurement of the dependent variables, and 4) inadequate specification and operationalization of potential causal and explanatory factors.

Each of these types of shortcomings is addressed in this paper. The key to enhancing the productivity of desegregation research is the development of theory to guide research design and analysis. Without theory, efforts to wrestle with the other types of problems will be less fruitful than they might be, and what success we have in resolving them will have limited effect on the development of knowledge, especially knowledge which is useful to understanding human behavior generally.

One of the most serious problems caused by the absence of theory is that we may misunderstand or misinterpret relationships between variables. This is a particular difficulty for desegregation research because the issues examined often involve conflicting values and have ideological meaning. A good example is the interpretation of the findings of the so-called Coleman Report (Coleman, et al., 1966). Findings in that study were frequently interpreted as deemphasizing the importance of school resources (including teachers) and pointing to the importance of peers, especially peers of a middle class background, in shaping achievement. This conclusion resulted in all manner of mischief, including presumptions such as schools don't matter much and black children can learn best when

in the presence of whites. Neither presumption, however, makes much theoretical sense. More recent analysis suggests that peers do count, not because of their race or some type of "lateral transmissions of values," but because of how teachers behave in more heterogeneous environments. This difference in analysis is crucial. Where the earlier presumption suggested that educational policy was largely unimportant, the later analysis suggests schools can and do differ in ways that affect children. More specifically, when theory is applied to an analysis of data on strategies for desegregation, the data indicate that relatively low cost, intuitively sensible policies and practices can be introduced in desegregated schools that will enhance the academic achievement of students.

This agenda for research is structured, therefore, by a set of theoretical propositions. These propositions provide a framework in which substantive research questions are identified and the potential that significant answers to these questions might have for the advancement of knowledge can be estimated.

In addition to the relative absence of theory and problems of research methodology, there are several other characteristics of the empirical research on desegregation which can account for the inadequacy and the apparent inconsistency of the knowledge based upon which strategies for more effective desegregation can be developed.

Most studies of the effects of desegregation on children focus on black students. There is some analysis of the effects of desegregation on whites though much of this is the by-product of comparisons with blacks. There is very little work on Hispanics and seemingly no published research at all on other minorities.

The bulk of the research focuses on the first year or two of desegregation. This has important consequences since there is every reason to believe that the benefits of desegregation for children are greatest after the initial, often unstable and conflictual, period (Crain and Mahard, 1981; Coulson and MacQueen, 1978). Moreover, there is almost no research on the implementation of desegregation after the period during which the plan is formulated and adopted. This means that almost nothing is known about problems of organizational adaptation, the politics of parental response to desegregation over time, and how administrators and teachers cope with the complex problems of making desegregation work.

Most of the studies of the politics of desegregation emphasize local events. Indeed, there is considerable amount of such research and we do not urge further work on that topic in this paper. This local focus has seldom engaged the effects of state and federal actions (except court action), though in some instances the influence of other governments is clearly very important. Not surprisingly, perhaps, there is relatively little work on the politics of desegregation at the state and federal level, a notable exception being the work of Orfield (1978a). Despite the substantial interest in the local politics of desegregation (e.g., Kirby, Harris, and Crain, 1973; Willie and Greenblatt, 1980; and Rossell, 1978), only a few researchers have sought to connect such efforts to what goes on in schools, much less to what happens in classrooms to the students being desegregated.

It is important to note that much of the research that asserts that it is about desegregation is about racially mixed schools and we do not know whether the racial mix was the consequence of planned desegregation. Indeed many of the best known studies (Coleman et al., 1966; St. John,

1975) do not distinguish between formal desegregation and otherwise racially mixed schools. Desegregation is an identifiable social process that has a particular starting point and carries with it, in one measure or another, assumptions that change is required or desirable. To consider the experiences children, teachers and parents have in such a process to be the same as those they have in schools "integrated" because of residential patterns or school district consolidation is a precarious assumption.

Finally, beyond matters of theory, foci, and research methods is the nature of the process by which research is replicated, formulated and its conclusions tested. There is no research and development system related to desegregation and this situation, which is rooted in the way research is organized and funded, is a major reason why knowledge has been so slow to accumulate and to be reflected in public policy. We will turn to this concern in the final section of this paper.

This research agenda draws heavily on the work of our colleagues in the Assessment Project.* In particular, we have drawn on the work of Rossell and McConahay and their contributions are noted at appropriate places in the body of the paper.

Research on Pupil Assignment Strategies

Overview

To oversimplify, securing effective desegregation involves only two tasks: 1) the development of a pupil assignment plan and other strategies that eliminate racial isolation and has reasonable stability--in terms of

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*See the preface of this paper for a list of the Project participants.

racial composition of schools--over time, and 2) the development and implementation of programs and practices that result in equity and educational quality. Of course, these two general tasks encompass many strategies, but seem to be useful general categories for organizing this agenda.

- The effectiveness of a pupil reassignment plan depends on:
  a. its efficiency in eliminating racial isolation,
  b. its stability or "holding power,"
  c. its effects on housing patterns, and
  d. the extent to which it shapes the possibilities for positive implementation of educational policies and practices that benefit students.

In general, these four conditions are interactive. Attaining positive outcomes on one dimension will generally, though not always, enhance the likelihood of attaining positive outcomes on the other.

The Logistical Efficiency of Desegregation Plans

There are many ways to reassign students to achieve some measures of racial balance. If the criteria for evaluating the effectiveness of these strategies have to do with financial cost, the time students spend getting to school, and minimizing the number of students who must be reassigned, there are few generalizations that can be made.

It would be useful, however, to know in a more systematic way that criteria for reassignment are embodied in different types of plans and what specific techniques for meeting the criteria are most often used with what effect.

It appears that the logistical efficiency of different desegregation strategies is so contingent on local conditions that the criteria rather

than the strategies are usually the issue. No research is available on such matters and there does not appear to be a research question here to which comparative analysis could be fruitfully done. It does seem that actual strategies for minimizing transportation costs that relate to the scheduling and maintenance of buses would be usefully identified and evaluated. Once armed with criteria for assignment and with a knowledge of the alternative strategies that can be employed, the desegregation planner is an artist, not a technician or a scientist.

Developing a Stable Plan: Reducing White Flight*

Perhaps the most painful and difficult problem of desegregation to address is that it sometimes leads to "white flight." Black, Hispanic and Asian flight may also occur in some cities, though in comparison it seems a relatively small phenomenon. In any case, we know virtually nothing about it--how much or why? There is a substantial body of research dealing with white flight (cf. Rossell, 1980). But despite the fact that much of this work is quite sophisticated, it is largely atheoretical and has focused on introducing new data to the same questions. A theory is needed that would (1) define the conditions which result in flight from desegregated schools, and (2) provide some basis for policies that one could predict would reduce or eliminate such flight. It is clear though that many whites flee from desegregation because they are racist but this explanation, itself, accounts for too little. Moreover, the content of racism is changing and it appears that busing has become a symbolic issue for many (McConahay and Hawley, 1977). The specific sources of racism and

*This subsection was co-authored by Hawley and Christine Rossell.

the normative content of opposition to "busing" seem important topics for future research.

Hirschman (1970) has developed some concepts that appear to provide a way to think about the white flight problem. If we take some small liberties with Hirschman's ideas, we can postulate that people will consider "exit" from the public schools when they perceive that the costs of seeking another option (private schools or suburban public schools) are lower than the costs they experience by staying in the public schools. In other words, exit is considered when persons perceive that the benefits of a move from public schools outweigh the costs. The costs people experience are both economic and psychological and it is perceived costs rather than objectively measured costs that shape behavior.

When schools are desegregated, many parents believe that the ratio of costs to benefits changes. It might be hypothesized that the perception of increased costs are based on one or more of five types of assumptions:

1. The quality of education their child receives is declining or will decline.
2. Their child will be subjected to greater physical violence or emotional harassment.
3. Their child will be exposed to and probably influenced by values dealing with academic achievement or social and sexual behavior that are not in the child's interests.
4. They will lose influence over their child's education.
5. Their property values will decline, either because the differential value placed on the schools in their neighborhood will

decline or because others will flee from desegregation creating a "buyers market" for real estate.

But the decision to act on an assessment that desegregation will increase the costs and decrease the benefits of sending one's child to public school does not depend wholly on the net costs people attach to sending their children to desegregated schools in the same city in which they now live. It will depend also on:

1. What Hirschman calls "loyalty"--a commitment, in this case, to the public schools. This leads some people who believe that desegregation will weaken the quality of education to stay in the city public schools. These people are likely to become activists for school reform. In Hirschman's terms, they engage in "voice," and are "quality consumers." If school officials do not respond to this "voice," these consumers will exit. Often, where costs are seen as highest, protest is greatest. In these communities, school officials may spend most of their time responding to opposition to desegregation rather than to demands for educational improvement thus encouraging these "quality consumers" to leave. Ironically, "loyalty to the public schools" may cause people who could afford private schools in central cities and who like living in the city, to move their residences to suburbia.
2. The options people have to choose from. Whether one can exit depends on the availability of private school and suburban options. Thus in Florida, where all public schools are countywide and there has been no highly developed parochial school system, exit has been minimal. In the mid-Atlantic states and in some parts of the midwest where suburbia is close-by and

socioeconomically heterogeneous and where parochial schools have had unutilized capacity, flight has been substantial.

3. The ability people have to pay for options. Exit from public schools involves the costs of private schools or residential move. One reason that studies often find a loose or negative relationship between favorable attitudes toward desegregation and willingness to stay in desegregating schools (McConahay and Hawley, 1977), is that those most opposed to desegregation often have low incomes or belong to religions for which there is no developed parochial school system. These persons are likely to feel trapped by desegregation and to engage in voice. When one is opposed to desegregation and without exit options, voice is likely to be focused on protest against desegregation itself. Busing is the tangible instrument through which desegregation imposes its costs on these opponents, and it is likely to be a symbol of opposition to the larger changes about which these persons are concerned.

Public policies which ease the effects of the costs of exit will affect the amount of exit. Thus, vouchers or tax credits that apply to private school tuition might increase flight from desegregated schools. High interest rates on home mortgages, new home building slowdowns, and gasoline cost increases for those who would have to commute further to work if they moved to the suburbs, all increase the costs of exit.

This theoretical framework, then, should direct research toward understanding how and why people assign costs to desegregation, what benefits they see outweighing these costs, including those which are rooted in

what Hirschman calls "loyalty," and how this rudimentary form of cost-benefit analysis is affected by the "exit" options people have. Answers to these questions will allow one to develop strategies to reduce or eliminate desegregation-induced white flight.

If one were to identify a handful of more or less specific needs for information related to white flight reduction strategies, these seem to be the most important:

1. We need to determine what racial mix produces the greatest net benefit in interracial contact (swb) and under what conditions this involves tradeoffs between white flight and racial balance.
2. We need to know whether magnet schools in a mandatory desegregation plan actually reduce white flight over the short and long terms and facilitate community acceptance. We also need to know whether they ultimately improve interracial contact in comparison to mandatory plans without magnet schools. In particular, more knowledge is needed about the overall effects of "academic magnets," on flight, especially flight of families whose children do not attend them.
3. We need to know whether there is greater white flight from black schools than from Hispanic schools and under what conditions.
4. We need to know if there is less white flight when students are reassigned by grade level or by lottery.
5. We need to know the effects of the media on white flight. The policy relevance of this issue lies in answers to questions like: How were the media dealt with by school officials and advocates of desegregation with what effect? How did the school system

respond to the way events were portrayed in the media and what effects did this response have on parents and other citizens?

6. We need to know more about the ways parents define educational quality and how important it is in the hierarchy of values they hold for their children.
7. How do various strategies for parental and citizen involvement in the development of the plan affect the willingness of parents to send their children to public schools?
8. Do plans that minimize the perceived costs for those that have the greatest options for exit have holding power?
9. How important to parents, other things being equal, is the stability of the plan vis-a-vis their children's attendance? From an educational point of view, how important is continuity of relationships with teachers, peers and curricula, and, if stability of these sorts are important, how can they be incorporated into desegregation plans?
10. How can the language development needs of students with limited English speaking ability be accommodated within desegregated plans.
11. What assumptions do parents have about the appropriate amount of time a student can spend riding the bus before the "lost" time affects learning?
12. Are the factors that affect perceived costs and benefits of desegregation weighted differently by persons of different racial and ethnic groups.

Desegregation and Housing

There is growing evidence that school desegregation fosters racial integration of housing (Pearce, 1980). The reasons for this appear to be that 1) desegregated schools reduce choices of housing motivated by the desire to send one's children to racially isolated schools, and 2) some plans create incentives for integration (e.g., by excluding integrated neighborhood schools from busing).

Specification of the circumstances under which different pupil assignment strategies foster housing desegregation should be a first-order research priority.

The better integrated a community's neighborhoods, the less the need for busing. Busing is not only the source and symbol of antagonism toward desegregation. It limits the flexibility of educational programs and makes it more difficult (but certainly not impossible) for some parents to participate actively in their children's education.

What seems to be needed, then, is a series of case studies of housing patterns in cities undergoing desegregation. Such studies need to encompass cities of different socioeconomic characteristics and different types of racial patterns in housing before desegregation. We need to know whether school desegregation ultimately leads to an increase in residential integration defined not just in terms of racial balance as Pearce (1980) defines it, but also in terms of the net increase in the proportion white in the average black child's residential block (swb). (This measure reflects white flight and thus tells us the net benefit of a plan.)

The theoretical framework for researching white flight that was outlined above might serve as a way of identifying the types of data and conditions one would want to include in a housing effects study. The sites

should include school systems that have been desegregated for some time, especially since some neighborhoods may appear more integrated as they make their way from moderately mixed to racially homogeneous. Public and private agencies, such as housing authorities, zoning boards, and realtors, may play a crucial role in shaping housing options and choices.

The inquiry appears to call for an integration of quantitative and qualitative methodologies. Housing records, census information and surveys lend themselves, of course, to aggregate data analysis. It seems important, however, to do sufficient field work and descriptive investigation to specify the behavior of realtors, the differences among neighborhoods, and the relationship between housing choices, the quality of the housing stock and the quality of public services and amenities available in each area seemingly affected by desegregation. Knowledge of this sort would allow one to estimate the likely impact of state and federal policies affecting housing. In particular, it seems important to know whether state finance equalization fosters residential desegregation and how zoning and public housing policies related to residential density and the concentration of low and moderate income families affect housing choices.

Effects of Pupil Assignments Plans on Educational Options

While the purpose of pupil assignment is to reduce racial isolation, it also has the consequence of creating structural conditions which affect the character of a student's educational experience. Beyond determining the racial mix of a school, pupil reassignment also affects the socioeconomic mix of students in a school, the grade structure, the size of schools, the degree of continuity a student has with teachers and peers,

and the availability of difficult types of educational programs including extracurricular activities.

There is virtually no research on any of these questions. That is, there is no knowledge base upon which to assess the educational constraints and opportunities created by different types of assignment plans. It seems especially important to examine the effects that variations in pupil assignment plans have on programs for non-English speaking students. In short, it seems likely that pupil reassignment plans, in themselves, have induced substantial changes in the structure and climate of schools aside from the effects of plans on the racial composition of student bodies and faculties.

Moreover, these "secondary" effects of assignment plans may have substantial consequences for the racial stability of the plan and the integration of housing.

Creating School Environments that Promote Racial Interaction, Academic Achievement and Equal Protection of the Laws

The process of desegregation results in both demands and opportunities for changes in school systems. There are a number of programs and practices that can benefit students; more knowledge about the effectiveness of these strategies under different circumstances would encourage schools to be more adventuresome in addressing the challenges with which desegregation confronts them. But before turning to the research questions that seem most useful to pursue in regard to desegregation-related educational programs and activities, we want to give substantial attention to the issues of implementing new programs in a desegregating school system and to why school systems do not implement policies and practices that seem to hold substantial promise for improving the effectiveness of

desegregation. In other words, it is not enough to know what to do; it is essential that we better understand the political and administrative processes that affect the extent to which potentially effective strategies are implemented. While desegregation provides opportunities for positive changes in the benefits all children receive from school, and these opportunities are sometimes realized, in many cases desegregation results in conflict and resistance within school systems.

The Implementation of School Desegregation*

There is simply no satisfactory research on desegregation which would allow one to account, either theoretically or empirically, for why school systems respond the way they do to desegregation, and what implications their responses have for their institutional capacity to be effective in terms of the equitable distribution of quality education. While we know something about successful desegregation strategies, we know little about why those strategies are not implemented more widely and how we might structure school systems, politically and organizationally, to enhance the benefits of desegregation and reduce or eliminate its costs.

Theoretical framework. As we have noted, there is no satisfactory theory of institutional change upon which to base a tightly developed strategy for understanding the implementation of desegregation. It is usually desirable to design research in such a way as to accommodate a number of different explanations for the phenomena being studied. We have developed, however, a theoretical framework which serves to focus research questions and narrows the range of data to be collected. The

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*This subsection of the paper was co-authored by Hawley and Richard Pride.

theory is original but it is consistent with several propositions and hypotheses for which there is some support in the literature.

The need for new research and theory development. School systems are parts of political systems and are themselves political subsystems. In the course of normal events, they arrive at a state of equilibrium. Before they undergo desegregation, programs, policies, and procedures of stasis maintain, or are at least consonant with, an inequitable pattern of education. Desegregation introduces a new set of demands which requires organizational and programmatic change. School systems may respond to these demands on a continuum of (a) resistance to, (b) accommodation to, (c) full adaptation to new needs (not just demand) to, or (d) the institutionalization of adaptive capacity. The central question is: why are some school systems able to institutionalize adaptive capacity in the service of equity and others are not?

Existing theory and research is unable to explain why school systems respond the ways they do to desegregation for several reasons: 1) theories of organizational change and conflict resolution have not taken into account the magnitude of the value and power conflict that often accompanies desegregation, 2) most studies of educational innovation do not deal with systematic and comprehensive change, 3) theories of change usually do not focus on issues which are defined as moral or constitutional issues, 4) there have been limited attempts to merge theories of implementation and theories of organizational change, and 5) research and theory building with respect to community conflict does not deal with "forced" community change and resistance thereto.

As Mann (1978) has argued, many writers on educational change have underemphasized the importance of value and power conflict as sources of

resistance of nonimplementation. Taken alone, programmatic changes such as curriculum reform, new instructional practices, or the introduction of remedial programs have been found to involve issues of power and value conflict. The magnitude of the conflict over values and power within school systems undergoing school desegregation, when all of these things may go on at one time, is massive. Yet, there is no systematic research laying out the conditions of within-system change in such circumstances.

The desegregation process not only alters a wide range of status and value differences within schools, but it involves--or usually is meant to involve--the symbolic and actual reallocation of power to control important events in people's lives (McConahay and Hawley, 1977). Thus, the changes demanded in school desegregation are often loaded with implications not only for the character of education parents perceive their children will receive, but with implications for a diminution or elevation of one's relative power and status in the community and the larger society. To complicate matters further, schools undergoing desegregation are very visible and are vulnerable to demands for power sharing. No study of desegregation has adequately engaged this issue and its implications for the implementation of school desegregation.

Second, most studies of educational change focus on particular innovations that usually affect only one part of a system or of a teacher's behavior. But desegregation often requires that school systems adapt in several ways all at once. Berman and McLaughlin (1979) argue that school systems are involved in a recurrent balancing act seeking to resolve five basic dilemmas simultaneously. Theories formulated in the context of demands which allow, both politically and technically, incremental change

(Pressman and Wildavsky, 1973; Gaynor, 1979) are not very helpful in prescribing effective change strategies.

Third, school desegregation usually involves assertions of rights. In this context, processes of effective change such as compromise or mutual accommodation (Berman and McLaughlin, 1977) may not have much relevance. Adjustment of goals and processes involving civil rights is often neither possible nor desirable. This may mean that those who are required to change see the process as unfair and uneven.

Fourth, the problem of understanding the organizational and political dynamics of desegregation suggests the need to explicitly merge theories of implementation and theories of organizational change (Berman, 1980). The study of desegregation not only gives urgency to this need; it provides the opportunity to pursue more comprehensive theory. For example, desegregation seems to provide an excellent opportunity to examine the relationship between stages of the change process. Following Lewin (1958b), change involves mobilization, implementation and institutionalization. In particular, the problems of "slippage" in the process of implementation and institutionalization--which often manifest themselves in resegregation--may be illuminated.

Fifth, theories of community conflict and stability are limited when they are brought to bear on desegregation. School desegregation is an attempt by a minority of the population allied with courts and a small group of government officials to force fundamental community change. It is a policy which redistributes costs and benefits both within and across communities, and hence, it arouses intense reactions. While the ultimate outcome of desegregation is to reorient the way individuals see themselves and others in society, the immediate objectives are programs and

procedures which might lead to this result. Rossell, summarizing a wide literature search, boldly asserts: "There are virtually no theories of social change that are applicable to this particular type of 'forced' community change" (1978). We agree with her. Neither the community power structure model (Hunter, 1953), nor the pluralist model (Dahl, 1961), incorporate the influence of "external" coercion. Theories about "second face of power" (Bachrach and Baratz, 1962) which is reflected "nondecisions," similarly do not explicitly deal with situations involving comprehensive change that is driven by forces largely, though not wholly, beyond the control of local power structures and value systems.

In sum, the implementation of desegregation is not likely to be well understood by examining existing research and theory which by and large address questions of incremental change. This fact suggests further the need for a more politically sensitive analysis of change and of the impact of turbulent internal and external conditions on schools.

We assume that educational equity is, in significant ways, a product of changes in the practices and policies of school systems. These changes are manifest in the behavior of teachers and administrators, the suitability of learning environments and instructional strategies, and opportunities for rewarding interracial contact among students. The product of these changes, of course, are benefits which accrue to students and ultimately to society.

These changes, if they are to be implemented and sustained, require that two general conditions exist: 1) reallocations of power in the system, and 2) new resources. We hypothesize that both these conditions must exist for change to produce equity that is significant and enduring. Implicit in this assumption is the recognition that desegregation may

result in centralization of power and reduced resources. The theory is summarized in Diagram I.

The model locates the principal causes for enhanced organizational commitment to and capacity for equity in the reallocation of power and resources. If the distribution of power within both the organization and community persists from the pre-desegregation equilibrium into the post-implementation phase largely unaffected, and if new resources are not generated or freed from other activities, then there will be no significant capacity to achieve equity. If the opposite is true--power and resources are reallocated--then it is probable that new capacities for educational equity will have been produced. If there is only a reallocation of power but no new resources are provided, there is the probability of continuous and debilitating conflict. If there are new resources applied to desegregation programs but no reallocation of power, then the changes in policy and program will be largely marginal, perhaps symbolic/innovative, but short-term and limited in scope.

DIAGRAM I

Change in Allocation of Power

Change in resources leading to change in capacity	HIGH	LOW
HIGH	Significant, long lasting change	Minimal, symbolic change reflected in superficial "innovations" and co-optation of change of advocates
LOW	Short-run, non-institutionalized change, enduring conflict	No Change

There are other theoretical approaches that might be employed to study systemic political and organizational changes. A review of the relevant literature suggests that there are four generic ways in which lasting changes in public policy come about: coercion, information, reallocation of power and changes in resources. These sources of change may occur singly or concomitantly. As we have noted, we believe that research should be primarily concerned with understanding the role of the latter two sources of change because of shortcomings in the coercion and information approaches to change.

Coercion is a policy that is turned to as a last resort. There are important questions about the side effects of coercion and the extent to which coercion-induced change can endure when the force behind it is removed (Festinger, 1957). Of course, almost all desegregation involves some measure of coercion. It is the content of the coercive action that we are interested in as it relates to reallocation of power and the distribution of resources. Without these two conditions, we hypothesize that mandates that school systems enhance equity will be minimal and short-lived.

Coercion, in any case, is a limited tool of educational policy since most significant events affecting the experiences of children in school are beyond the direct supervision and control of courts or federal or state agencies. Our primary interest is in explaining sources of change in what might be called "discretionary policy space." That is, while coercion may affect the context of implementation in most cases, what explains change over which school systems have control?

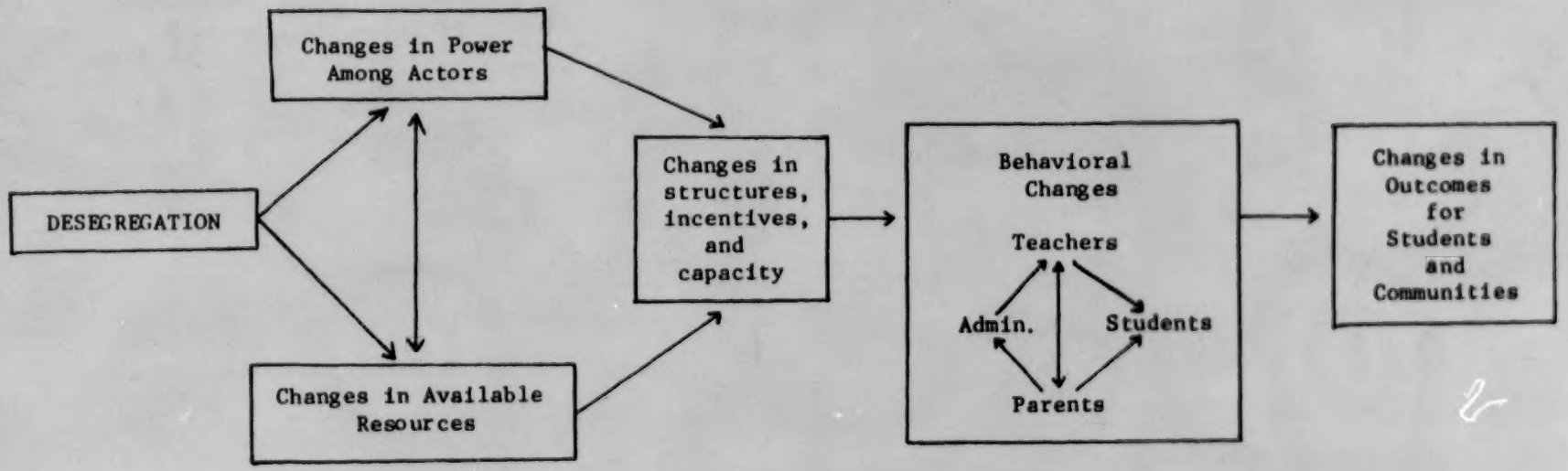
Information theories of change are based on the assumption that there is a readiness and capacity to change and that information about the

utility of change and the ways it can be achieved, will bring about an effort to change. Information theories seem best applied to cases in which 1) there is wide agreement on goals, or 2) an issue (problem) is relatively new, and 3) issues of power and privilege are not seen to be involved. Moreover, information theories of change are most often tested with respect to change in individual behavior, although information theorists have been concerned with both micro- and macro-social systems (cf. Deutsch, 1963). We imagine that information (e.g., technical assistance, training) can have an independent effect on equity. Our hypothesis is that such changes are likely to characterize parts of the system or individuals and not whole systems or practices that are fundamental to the life of schools. One possible exception to this hypothesis is a case where the change implemented produces equity at no cost to the attainment of some other goals, such as academic achievement, that were held prior to desegregation. An example of such a change may be "cooperative learning" (Slavin, 1980). This general proposition is developed by Yin (1979) to explain change in urban bureaucracies. The point is that information affects change because it is aimed at goals subscribed to by the system. No power redistribution may be required in these cases though new resources, at least in the form of training and support, probably are needed.

Key variables. This abstract discussion of theory can be given more definition by conceptualizing these ideas as an analytical model in which changes in power interact with change in resources to produce new structures, incentives and capacity. These organizational changes are reflected in particular programs and practices that result in behavioral change among students and those that affect their learning.

Diagram II

The Analytical Model



This process is outlined in Diagram II.

Dependent variables. Ideally, actual changes in the behavior of teachers, students, parents, and equity outcomes would be the subject of inquiry. Such outcomes, however, are difficult to determine and require pretest/post-test designs that are costly and time consuming. Alternatively, research on implementation might focus on explaining variations in three general types of possible consequences of desegregation:

1. Implementation at the district level and adoption at the school level of specific practices that the literature suggests are likely to lead to effective desegregation. A list of such practices is presented in Hawley (1980a).
2. The adaptiveness of school systems. It is not difficult to argue that effective school desegregation--indeed, effective schooling --requires that systems be organizationally adaptive (Hawley, 1976; Berman and McLaughlin, 1979). One might look for evidence of such adaptiveness in organizational characteristics such as those identified by Berman and McLaughlin: delivery diversity, integrated loose coupling, primacy of delivery concerns, boundary openness, and institutionalized change. Hawley (1976) has also identified the characteristics of adaptive schools.
3. Commitment and support from the systems' constituents. It is widely believed that effective desegregation requires continued support from those on whom the system depends (Ollie and Farell, 1980). Without such support, institutions will have little slack and thus little capacity for adaptiveness (Mohr, 1969) and

responsiveness (Dahl, 1961). Five indicators of that support that might be studied are:

a. rates of participation in elections and support groups (e.g., PTA),

b. results of referenda on spending or bonds,

c. levels of disorder in the schools (vandalism, interpersonal violence),

d. flight to private or suburban schools,

e. teacher absenteeism and turnover.

Independent variables. The following represents a tentative list of factors internal and external to desegregating school systems that might account for their capacity to be effective and adaptive.

1. Degree and character of political and administrative decentralization.
2. Nature of professional development programs.
3. Mechanisms for sustaining accountability to parents or school boards.
4. Mechanisms for goal setting and consensus building at community and organizational levels.
5. Nature of the pay and promotion (reward) system.
6. Administrative feedback mechanisms.
7. Mechanisms for involving parents.
8. Nature of the electoral system.
9. Access of the system to external information and resources.
10. Character of the communities' race relations (turbulence).
11. Geographic and economic accessibility to "exit" options.

12. Clarity and consistency of authoritative policies about desegregation.
13. Number of power centers required to reach agreement for effective action.
14. The resources and legitimacy of advocacy groups.
15. Capacity for and use of program evaluation.
16. Organizational norms supporting risk taking and change.
17. Resources available for new program development (money and staff).
18. Scope of the desegregation plan.
19. Mechanism for coping with personal stress within the organization.
20. Mechanisms for interpersonal interaction among professionals.
21. Role of professional organizations.
22. Demographic, especially racial, composition of district.
23. The economic condition of the community and income and status differences among racial groups.

Summary. The theory that we suggest deserves testing holds that the interaction of power and resources determines the direction schools take in the post-desegregation period. A reallocation of both is probably required for successful and continuing capacity to meet the needs for educational equity. Old power relationships are involved too much in the priority of policies, programs, and procedures associated with inequality to be effective in the post-desegregation phase. In any case, whatever resources are spent on the task are usually contingent on short term forces, including coercion from outside. The capacity of the school system to adjust to new demands, and to respond to newly emerging needs,

is conditioned by patterns of power and resource reallocation. The reallocation of either, taken alone, is likely to be expended in halfway, non-institutionalized responses. New patterns of power without resources may result in continuing conflict between the white and minority communities and within each as frustration mounts. New resources without new power patterns can lead to symbolic and, very probably, short-term changes. Both the reallocation of power and resources must occur if effective systemic change is to result.

District Level Strategies

Let us put behind the question of implementation and assume that the district will take steps to do what is necessary. The question then becomes what should we do and how should we organize to do it? Almost all of the research on this question has been conducted at the school level. There is little research--or even prescription--that speaks to the role of school systems at the district level.

The following questions seem to provide starting points to research on how a district might organize itself to produce more effective desegregation:

1. What are the appropriate functions for a staff office responsible for facilitating desegregation? How can desegregation be seen as an integral and continuing function of the district that is complementary to rather than in conflict with the district's perceptions of its central missions?
2. Does involving teachers in the development of desegregation-related policies and programs increase the likelihood of effective implementation of effective desegregation? What are the most productive strategies for such involvement?

3. What is the effect on public acceptance of desegregation and activity on behalf of school improvement of district-level efforts to increase the information available about school programs and their outcomes for students?

School Level Policies

Schools that are desegregating share with other schools two dominant values: 1) the maintenance of order, and 2) the improvement of student academic performance. Because it creates greater diversity in terms of family and cultural backgrounds, expectations, and ability levels, desegregation usually will be seen by educators as making the achievement of these two dominant values more difficult. In addition, desegregation imposes another value on a school system--increasing the amount of positive interracial contact among students. This value, while subscribed to by most educators is seldom seen by them to be as important as judges, state agencies or desegregation agencies insist that it be, and is often seen as complicating the attainment of the more highly valued goals. All of this means that schools will inevitably have to adapt their structures and practices to achieve effective desegregation and that intensive inservice training is invariably necessary.

This section is organized around four issues confronting desegregating schools:

1. How can academic achievement be maintained and improved?
2. How can better race relations be attained?
3. How can discipline and order be maintained in an equitable and just way?
4. How can educators be more effectively trained to be effective in desegregated settings?

The answers to these four questions must encompass another value, namely that racial considerations will not result in denying needed programs and resources, teacher and staff attention and concern, or rights of due process to students.

In concluding this section we draw attention to two issues that cut across program outcomes and about which the research is limited and not very instructive: 1) the consequences of desegregation for Hispanics, and 2) the role of the principal.

DESEGREGATION AND ACHIEVEMENT

The Academic Achievement of Minorities

It seems reasonably clear that minority children who attend school with white children perform better on standardized achievement tests than do students who attend segregated schools (Crain and Mahard, 1978, 1980). But why this is so is not so clear. The explanation does not lie in background differences of students in segregated and racially mixed schools. Different answers will have significantly different implications for public policy.

There are at least four theories that might account for the effects of desegregation on the academic performance of minorities. Each theory suggests direction for research.

Peer influence. Since at least the mid-sixties (Coleman, et al., 1966) it has been popularly believed that desegregation would enhance the achievement of minorities because it brought them into contact with higher achieving peers. For example, commenting on the "Coleman Report," Jencks and Brown (1975) observed that desegregation wouldn't affect achievement if we had enough middle class blacks to go around. More recent research has called into question this "lateral transmission of values" theory

(Patchen, Hoffman and Brown, 1980; Maruyama and Miller, 1979).

So, the first question is, does peer achievement have an effect on student performance? If so, is it stronger within race than across races? Hawley (1976) found that blacks' academic motivation was correlated with the motivation of black and white peers but more strongly with black peers. Whites were unaffected by black motivation. Does this finding hold up in other settings and, if so, what implications does it have for classroom structure and racial composition?

Since the research seldom shows significant declines in student achievement in desegregated schools, and since desegregation cannot always increase the average motivation of students in any school or classroom, something else must be going on besides peer influence.

An obvious answer is that teachers must do something different in desegregated classrooms. But what are those things and why do they happen? One of the things teachers may do is to use the achievement levels of some students to establish norms for others. In that case, the average levels of motivation would not be important, but heterogeneous classrooms would be. Among the important issues that warrants research is: how wide can the achievement gap be and still achieve the potential benefits of heterogeneous classrooms? The answer to this question may depend, in turn, on factors such as the lowest level of student achievement, class size, teacher preparation, subject taught and the instructional strategy used.

Desegregation may be a catalyst for change. Desegregation is often imposed on communities in ways which require substantial changes in the services schools offer and the ways schools perform them (see pp. 19-32

above). These changes might pump new energy into schools so that old practices are questioned and new approaches are tried. This benefits all children involved in the system.

The assumption which underlies this theory is that the specific changes resulting from court orders and from the realization of difficulties the school must face in desegregation lead to new and better programs, a greater capacity for change, and a search for new answers to problems which transcend desegregation itself. The idea is that there are spillover effects from the effort to desegregate that encourage change and changefulness.

This theory is an intriguing one but there has been no systematic research that bears on it. Some research questions that might be addressed are:

1. What types of programs and processes do desegregating school systems adopt that might, at least hypothetically, improve the overall quality of schools?

   Some programs that are typically part of desegregation plans and might bring about improvements include "alternative" schools, parent and teacher involvement strategies, student rights policies, and staff development.

2. What other changes, if any, are adopted that have no necessary relationship to desegregation?
3. Do such programs (a and b) persist over time?

If this theory is correct, it should be reflected in higher achievement, more student and teacher choices, and more parent involvement for both minorities and whites.

Desegregation may increase the equity with which educational resources are allocated. This theory rests on several assumptions, all of which seem to be worth further research.

1. Physical facilities and quality of teaching make a difference to the quality of education and opportunities for minority students.
2. Economic resources and control over their allocation are in the hands of whites even where communities are politically "controll controlled" by minorities.
3. The resources available derive from an economic system which is white-dominated and from state and federal agencies dominated by whites.

Assumptions 2 and 3 are based, in turn, on an assumption that whites will discriminate against racially isolated schools in the allocation of resources.

What types of evidence on relationships between economic resource and educational quality, especially for minorities, would one want to develop? The central issue, in our view, concerns the effects of resource allocation on teaching. It is relatively easy to demonstrate that teacher quality is related to positive student outcomes. But, why do teachers teach where they do and why do they teach the way they do?

1. Does salary matter? This is presumably relevant across, but not within, school systems.
2. Do working conditions and physical facilities make a difference?
3. Does the quality of instructional resources affect the quality of teaching?

A third general question is: Does desegregation bring new resources to communities from external sources such as federal and state aid programs? Colton (1979) suggests that these outside resources exceed overall costs of desegregation in many cases. Generally and under what conditions is this not true? Again, do these resources make a difference? There is some reason to believe they do (Coulson and MacQueen, 1978). In the long run, will energy costs drastically increase the expense of busing? Will desegregation lead to the withdrawal of community financial support for schools? Finally, what are the costs, in economic terms, to the cities and to society in general, of failing to address the problems of racism?

Desegregation may improve teacher behavior toward minorities. This theory holds that desegregation results in more heterogeneous classrooms and in other events which encourage teachers to hold fewer stereotypes and demand higher performance and self-discipline of minority students. The first question is, obviously, under what conditions, if any, is this so? That is, do teachers behave differently in segregated than in desegregated schools (especially toward minorities)? The second is, would changes of this sort make much difference?

The answer to the second question is almost certainly that they would. But specifically, why should teacher behavior be altered? Some possibilities about which there is little research are:

1. Training. Teachers may learn new techniques, some of which improve student achievement.
2. The context of desegregation, under some conditions, may increase sensitivity to differences in student needs.

3. Teacher expectations for achievement and behavior may be altered because of the needs and abilities of higher achieving youngsters.
4. Teachers may be less prejudiced because monitoring activities or parent involvement arouse fear of being discovered.

As the last point suggests, a possible consequence of desegregation is that more parents who have the time, experience, and social status to make demands on schools for improved teaching will be, in effect, enlisted in the support of good teaching for lower achieving students as they seek to ensure a good education for their own children. This possibility raises a number of questions about the relationship between desegregation and the involvement of middle class parents in schools and about the consequences of that involvement. Does middle class involvement in any way make schools responsive to poor minority students? Does desegregation lead to greater or less involvement of minority parents, and how does this relate to middle class participation?

There are a number of other questions relating to teacher behavior in desegregated schools for which we have no satisfactory answers. For example, school desegregation usually involves teacher reassignments. Does this add to the problems students have in adjusting to the new schools in which they are to the achievement of both white and minority students?

A central issue that should be examined is whether, if desegregation does not always achieve the appropriate teacher behaviors, it is a necessary precondition for the average teacher.

Segregated or racially isolated schools are inherently inferior. This notion is articulated in the Brown decision with respect to de jure desegregation. Even if we accept the assumption as it applies to de jure

desegregation, the question remains whether students in de facto segregated schools are stigmatized. Do students attending racially isolated schools see themselves as going to inferior schools or being discriminated against? What are their attitudes toward school, their self-esteem and their racial identity? What are the relationships between these dispositions and academic achievement and attainments after high school? If students feel negative toward school, have low self-esteem or negative racial identities, do these feelings derive from racial isolation or from the schools themselves?

Another set of research questions has to do with whether students who attend predominantly minority schools are stigmatized by others, especially by employers and college admissions officers.

As we have implied, desegregation may affect a student's self-esteem. There has been considerable debate about whether the effect is long-term and whether it is positive or negative. Epps (1978) reviews the literature and concludes that desegregation does not negatively affect the self-esteem of minorities. But this issue is not closed by any means. Are different dimensions of self-concept or self-image affected by desegregation? How does teacher behavior affect self-concept? Are the effects different for boys and girls and for students of different ages?

Recently, the relevance of studying self-esteem, at least as it has been studied in the past, is coming into question. There is little evidence that general self-esteem, however measured, is causally related to achievement (Gerard and Miller, 1975; Pugh, 1976; Kerckhoff and Campbell, 1977). If this is so, and more evidence is needed before the case is closed, one reason may be that minorities learn not to look to school as a source of self-esteem. It seems very important to know whether this

possibility is correct, and if so, what can be done to change that orientation.

Effects of Desegregation on White Children

The available evidence indicates that whites and high achievers seldom lose ground when desegregation occurs. But this evidence is derived from studies that almost always focus on minority children so that the data are seldom fully developed. The plain fact is that most people do not believe the evidence. One could ask almost the same questions asked about minority achievement when examining the effects of desegregation on whites. Could desegregation lead to reallocation of resources and a direction of teacher attention away from white students?

Effects of Desegregation in High Achievers

Can high achievement norms survive in heterogeneous student environments and how is this affected by teacher behavior and the age of the students involved?

It is theoretically possible that high-achieving youngsters will do better overall in desegregated settings than they do in more homogeneous environments. Teachers, for example, may give them more recognition because their success is rewarding to teachers and can be used by teachers to encourage other students.

If school desegregation encourages teachers to be more responsive to differences in student learning needs and if new resources result in new programs, it may be that all students benefit. For example, in some cases where cooperative learning techniques have been adopted, it appears that high-ability students improve their performance (compared to control groups), though low achieving students are benefitted proportionately more (Slavin, 1980).

Much more speculative than these possible ways that high-ability students might benefit from desegregation is the hypothesis that, other things being equal, the diversity of the student environment in desegregated schools enhances cognitive development relative to more homogeneous environments. The theory here is that cognitive development is related, in part, to the intellectual challenges individuals seek to confront. Just as learning calculus has benefits for problem-solving capacities that go beyond the applications of the substantive knowledge one learns in calculus, it may be that seeking to understand social diversity, resolve value conflicts, and meet other challenges that are part of functioning effectively in socially and culturally diverse settings enhances cognitive development. The point here is not just that one may learn about racial, cultural, and class differences in desegregated schools, but that this may be a source of more general intellectual growth.

Desegregation and the "Average Student"

One of the things one hears parents of all races say during desegregation controversies is that it is the "average student" who gets hurt in the process. The thesis seems to be that schools will focus on the needs of lower achievers and those who otherwise have more visible difficulty adapting to new school environments and that high achievers will get attention because teachers need them or because they will demand it. This leaves the average student's needs unattended, at least relatively speaking. We know of no research that explicitly examines this intuitively reasonable thesis. One might infer, from the general evidence that achievement scores and race relations seldom are worse after desegregation than before, that the thesis is wrong. But such inferential evidence is hardly sufficient to answer so significant a concern.

Dealing with Diversity

Perhaps the most fundamental thing that desegregation does in most districts to alter the social and organizational structure of schools and to complicate implementation is that it invariably increases the diversity within the student bodies of schools involved and among students and teachers. While this diversity is a source of learning opportunities, it also results in increased differences in values, behavior, and academic achievement that some schools cannot handle. Thus, it may be that some desegregated schools actually decline in effectiveness, at least in the short run. This overload theory raises a number of issues related to instructional practices and school and classroom management.

While there is no question that desegregation makes teaching more difficult and increases the likelihood of interpersonal conflict in schools, it appears that the negative outcomes one might expect from these obstacles generally are either small or nonexistent. Perhaps this is because these costs are balanced by benefits that other theories suggest are often the products of desegregation.

If we could learn more about the conditions under which the problems that could result from the complexity and diversity of desegregated schools are effectively managed, the net benefits of desegregation probably could be enhanced. Three questions in this regard to which it would be particularly important to have answers are:

1. Are there some mixes of students with respect to ability and social background that pose fewer problems for teaching and interpersonal conflict than others?
2. Do teachers in desegregated schools experience exceptional psychological stress and, if so, what are its consequences and how might it be dealt with?

3. What are the most effective instructional practices and classroom structures for coping with diversity?

The research on cooperative learning (Sharan, 1980; Slavin, 1980) suggest some answers to these questions. The importance of cooperative research is that it suggests alternatives to rigid forms of ability grouping and tracking. Almost all schools employ some form of ability grouping and it invariably leads to resegregation. It would be important to know the conditions under which special education programs provide students with net benefits given the apparent trade-off (when ability grouping is best done) between attention to specific learning needs and the possible contribution of desegregation to social mobility.

While various forms of cooperative learning represent promising ways to avoid tracking and to alter the educational climate of heterogeneous schools, certain other approaches to ability grouping may be productive of learning (See for example, Cohen, 1980; Findley and Bryan, 1975; Klausmeier, Rossmiller and Saily, 1977). How these might vary in effectiveness by the age of students involved and their effects on the attainment of other values are issues worthy of systematic inquiry.

DESEGREGATION AND RACE RELATIONS*

The basic theoretical framework within which much research on race relations has been conducted is the equal status contact theory of Allport (1954). There has been considerable research aimed at augmenting and refining this theory and we will try to summarize some of the key points

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*This section relies heavily on the work of John McConahay (1981) and Janet Schofield (1981).

of contention. This summary will serve to identify some of the most important issues upon which further research is needed.

What does equal status mean? The question here has two related dimensions. First, does the equal status requirement apply to the immediate context for interaction or does it apply to the status position students bring with them to the school situation? Second, given that whites are dominant in the society, are student expectations such that minorities must be given status advantage to equalize contact (Cohen, 1975)? Related to these considerations is the question of how differences in the social class composition of schools affect race relations.

What is the nature of the contact that is required? Must it be interpersonal and intimate (Amir, 1976), or may it involve interaction with positions and roles (Pettigrew, 1969)?

If so, what is the minimum size of that critical mass in both numbers and proportions? Does the size of the critical mass differ by the size of the school, with different racial groups, and in biracial as compared to "multiethnic" schools?

Do patterns of race relations vary by gender? Do black girls, for example, have less access to recognition in desegregated settings than do black boys, and do they face greater taboos with respect to interracial dating?

Does the age of the student involved affect race relations? It is clear that the younger children are, the greater the impact desegregation has on positive racial attitudes and behavior (Katz, 1976). But, given this, do strategies for improving race relations vary in their effectiveness by the age of the student? Does the stress many students

experience at junior high school age mean that race relations programs and academic programs should be different for this age group?

How can race relations be promoted in schools that ability group in various ways? While most observers agree that ability grouping and tracking discourage improvements in race relations, there is no consensus about the conditions under which such practices result in negative racial attitudes. Moreover, can students be ability grouped for some subjects (e.g. where differences in achievement levels are greatest) and, when this results in racially identifiable classrooms, "make up" the contact in other classes and in extracurricular activities and thus improve race relations? Are there circumstances under which this "mixed strategy" for interracial contact is the best approach to fostering good race relations (e.g. at the junior high level in urban schools)? Can racial stereotypes be avoided where tracking or other rigid forms of ability grouping are practiced?

Are human relations programs, multiethnic curricula, minority history and other cognitively oriented approaches to improving race relations effective? The results of research on the effects of curricula and instructional materials are not clear. Recent analysis by Slavin and Madden (1979) suggests that these approaches, in themselves, have limited or no effects on attitudes or reported behavior. Their data show that the crucial ingredient for fostering better race relations is greater interracial contact structured around everyday classroom activities. This finding reinforces the contact hypothesis and is consistent with other research on the acquisition of political and social values in schools, desegregated or not (Ehman, 1965).

What do principals do that affect race relations? Almost every commentator on the characteristics of schools that have good race relations stresses the importance of the principal in this outcome. But what, exactly, do principals do that makes a difference? Surely they must do more than "be committed to effective race relations." Can principals be trained to be effective in promoting good race relations and what might be the nature of such training programs?

Do teacher attitudes matter? There is enough reason to believe that teacher behavior of various sorts facilitates good race relations. The research question is: how are attitudes and behavior related? Can teachers behave in positive ways without having positive attitudes? Does positive behavior influence these attitudes and beliefs? These questions are of substantial theoretical importance and are similar to issues about which social psychologists have long been interested in different contexts. Their answers have significant implications for teacher training programs and recruitment to the profession.

Does the race of the teacher matter? Almost all observers urge that desegregated schools have teachers of different races. There is much intuitive wisdom to this admonition but little hard evidence to support it. The question we see as important is not whether better race relations are found in schools with interracial faculties. Rather, it seems important to know what it is that such faculties do, or what messages they convey that make a difference. And, do patterns of faculty interaction and the authority structure of schools mediate the potential positive effects?

The ways researchers have measured race relations have had important consequences for our images of the effects of desegregation. Because much

research has been based on inappropriate measures, a somewhat extensive discussion of this matter seems to be in order. We will discuss, in turn, the measurement of friendly racial contact, racial tension, and racial attitudes.

Measures of Friendly Contact

In the context of school desegregation, three types of scales are used: sociometric measures, attitude scales and self-reports of behavior. They should not be regarded as alternative measures of the same phenomena and each has its own strengths and weaknesses.

Sociometric measures. There are two types of sociometric measures in use: 1) self-reports of preferences, and 2) direct observations of interaction patterns. In the first, students are typically asked to name their three or so best friends or to name preferred studymates, teammates, or a partner for some other activity. Another version of this approach asks students to name the two, three or more most popular or smartest children in the class or school. The race of the person indicating the preferences is then noted as is the race of each person named. (See McConahay, 1978, and Schofield, 1980, for reviews of published desegregation studies using this technique).

The use of choice data of this sort to make very precise inferences about the state of race relations in a school or program is fraught with danger. Here are but a few of the hazards.

1. The choices (especially after the number one preference) might be highly unreliable. In the published desegregation studies

(Gerard and Miller, 1975; Shaw, 1973) estimates of reliability were not published and they are difficult and expensive to obtain. To estimate reliability correctly would devour a disproportionately large portion of most evaluation budgets.

2. Since unreliability puts a limit on validity, we cannot be certain of specific levels of validity either. General studies of the validity of sociometric choices have been done only using white children and, as Schofield and Sagar (1977) point out, these choice questions might have different meanings to cultural and ethnic minorities.

3. As Schofield (1980) points out, these measures are usually treated as if in-group and out-group choices are a zero-sum game. That is, if a child can name only three friends, out-group members can be named only by not naming in-group friends. This is not a very adequate model of the process of making friends.

4. The use of self-reported sociometric choices presents a special problem of interpretability. In order to evaluate results in the published studies, the obtained distributions of choices (by race) were compared to what could have been expected if race of friends, teammates, etc. was determined by chance. Since significant differences from chance were found (i.e., race was a factor in the choices), the programs were evaluated as failures (McConahay, 1978). This type of comparison, while elegant mathematically, is unrealistic. It is a comparison of what was observed with what could be expected when the millennium arrives and people no longer take race or culture into consideration when reporting their choices. Until the millennium arrives, such a

comparison dooms all programs using choices to be evaluated as failures.

Direct observations of behavior such as seating patterns or school departure groups make the reasonable assumption that people (when free to do so) will sit next to friends or leave school or stand with them on the playground. Provided that there is more than one observer taking data, reliability can be assessed and is usually quite high. Therefore, these measures should be preferred over self-reported choice measures. On the other hand, observations of seating patterns and the like have the same problems of making the assumption that out-group and in-group relationships are at the expense of one another (point 3 above) and of choosing an appropriate comparison for interpretation (point 4 above) as do the measures based upon self-reported choices.

If evaluators are going to go to the trouble and expense of observing seating behaviors, other behaviors and their apparent meanings might be observed with virtually the same level of reliability. For example, observers can note the number of friendly greetings in the halls or playgrounds and the races of the greeters. The advantage of observing these other behaviors is that they are open-ended. While a person can eat with only so many others (putting a practical zero-sum restraint on in-group and out-group partners), a person can say hello to members of either group without a corresponding reduction in the number of interactions of the same sort with the other group.

Self-reported behaviors. Race relations studies frequently ask students to report their behaviors and these studies then treat those reports as if they were actual behavior. For example, Patchen, Davidson, Hoffman and Brown (1977b) asked high school students to report the number of

classes in which they sat next to a person of another race and used that, among other measures as an indicator of actual interracial contact. It is our position that such reports of total number of contacts, of number of friendly contacts, of number of hostile interactions, and so forth, are not pure measures of behavior but are, instead, contaminated by racial attitudes. Those with positive attitudes will remember and report more friendly interactions while the opposite is true for those with negative attitudes. If the program objectives and evaluation design call for measures of interracial behavior, the behavior should be observed directly if at all possible. Self-reported behavior is a weak alternative.

Conclusions. On the basis of our consideration of the relative strengths and weaknesses of sociometric choices, sociometric observations, and self-reports of interracial behavior, we make the following recommendations:

1. Self-reports of sociometric choices should not be used in evaluating the effectiveness of desegregation-related programs.

2. Self-reports of behavior should be treated as contaminated by intergroup attitudes and not as a pure measure of actual behavior.

3. When actual behavior must be assessed, it should be based upon direct observation.

4. Direct observation should not emphasize traditional sociometric patterns (seating arrangements, etc.), but should focus upon open-ended, nonzero-sum behaviors as well.

Racial Tension

In the case of racial tension, our preferred measurement for racial contact--direct observation--is clearly unworkable. Severe fighting is a rare phenomenon. Observing for a sufficient duration to make accurate records is too costly, and the presence of the observer would no doubt

inhibit the event. But racial conflict is not an attitude; schools with poor racial attitudes are often very peaceful (at least in the deep South). This leaves only the alternative of self-reported behavior and a fourth alternative, the reporting of other's behavior. Both measures are contaminated by personal attitudes. This can best be overcome by using multiple respondents, and particularly multiple categories of respondents. Crain (1978) presents a scale with a high reliability, based on the pooled responses of white students, black students, teachers and principals.

Measures of Racial Attitudes*

Most attitude scales used in evaluating the effects of desegregation programs on race relations are made up on an ad hoc basis (System Development Corporation, 1979). Students are asked to agree or disagree with statements, written by the evaluators or other local persons, about the racial climate in their schools. Students are also asked about their own attitudes or the attitudes and/or behaviors of out-groups. The reliability of these homegrown scales is assessed using the same methods for norm-referenced tests aptitude or achievement. Hence, reliable (and valid) scales are those that maximize individual difference variance. This has two consequences: 1) there is an increase in the likelihood of a Type II error, i.e., the erroneous conclusion that the program had no effect, and 2) where attitudes are relatively uniform (positive or negative) the scales will appear to be unreliable by the standard mathematical techniques for assessing reliability. (See Clotfleter and McConahay, 1980).

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* This section was prepared by John McConahay.

Unlike norm-referenced achievement tests, there are no national norms for racial attitude scales. This means that without some sort of control or comparison group, a simple pre-desegregation/post-desegregation (or preprogram and post-program) evaluation design is uninterpretable (Campbell and Stanley, 1963; McConahay, 1978). If there is a great deal of turmoil outside schools, intergroup attitudes might become more hostile independently of anything done by the program. In fact, in the context of such external turmoil, a successful program might be one in which attitudes do not change while the control group attitudes become more hostile. Hence, the evaluation design must be longitudinal, cover more that just the first year of desegregation, and, if at all possible, have a comparison group to control for external history.

Scales of race related attitudes being developed by the System Development Corporation (1979) for use in its ESAA Human Relations Study are quite promising and the data from that study could be used as a first pass at developing base rate data (statistical norms). The SDC scales have acceptable reliability and they have face or content validity. In addition, though there has as yet been no attempt at construct validation in an experimental paradigm, the SDC scales have been shown to have discriminant validity.

Human relations programs frequently seek to teach students about minority life and culture as well as other factual material about American race relations (SDC, 1979). Though the scales used to assess what students learned in these areas are frequently treated as attitude scales, they are not. They are a type of performance or achievement test of the same sort as one would use to assess knowledge of the American Revolution or of Russian culture. Hence, it is quite possible to develop

criterion-referenced scales (tests) for this aspect of intergroup relations provided the objectives are clear and a consensus can be developed regarding what should be known by a student for whom the program was a success.

Race relations in the desegregation context. Regardless of the measurement scales used in the evaluation design, the context of desegregation must be taken into account in evaluating the outcome of race or intergroup relations programs. Under the most tranquil of circumstances, bringing new students into a school as a group can be expected to arouse both curiosity and suspicion and it takes time to make new friends or just to allay fears. All too often the circumstances are not tranquil due to forces outside the school which make it harder to make friends and allay fears. Hence, research designs which only assess attitudes just before and just after desegregation are inadequate. The research designs for intergroup relations programs must be both longitudinal and of sufficient duration to permit things to settle down. A premature report that the intergroup relations programs are not working and relations are worse than before can only create the conditions for a self-fulfilling prophecy.

INSERVICE TRAINING*

While there is a fair amount of prescriptive writing about inservice training for desegregation and a few descriptive studies, there is little empirical research which would allow one to know which strategies are effective with respect to changing behavior of educators and benefitting students. Of the empirical studies available, there exists no consensus

*This section was prepared by Mark Smylie and Willis Hawley.

about what constitutes effective inservice training. Some studies measure changes in educators' attitudes and behavior; others stress student outcomes such as academic achievement and interpersonal and race relations. Also, this research generally fails to measure impacts of training over time in actual classroom practice.

There are three general questions that need answers: 1) what criteria may be developed to determine the effectiveness of inservice training over time, 2) what are the processes of training that are the most effective according to these criteria, and 3) what are the most useful topics to teach vis-á-vis particular needs for knowledge that educators have? Until we have an answer to the first and second of these questions, answers to the third will have little consequence.

The following propositions are derived from the literature on processes of inservice training. They are not, however, fully tested. They provide an agenda for both action and research or, if you will, action-research:

1. Faculty members, administrators, and non-professional staff should understand the desegregation order, the desegregation plan, and the implications of the plan's implementation to the district, individual schools, and inservice participants. In addition, these groups should understand the changed natures of their student bodies and the various socio-cultural characteristics of new student groups.
2. Topics of inservice training programs should be germane to individual participants, their needs and day-to-day problems. Program development should be predicated on a needs assessment conducted by school staff.

3. Programs that aim for long-range changes need follow-up components which are focused on individual problems of participants applying training in the classroom. Classroom implementation of training should be monitored and follow-up sessions should be planned to assist participants.
4. The specific content of inservice training should be oriented toward school-level and not district-wide concerns. Small group formats are better than larger multi-school formats because they allow for identification of and concentration on problems of individual participants in the single school settings.
5. Training should be practical with "hands-on" experience and product-oriented outcomes for immediate application. There is consensus that abstract, theoretically-oriented training programs offer little immediate assistance to teachers and administrators and as a result participants tend to view such programs as providing slight, if any, benefit.
6. Participants should be included in the planning and design of inservice training programs.
7. If trainers are brought in from outside the school system they need knowledge of district and single school matters. Teachers and principals often respond better to peers from their own and other schools than they do professional consultants.
8. Whenever possible, faculty and staff of the host school should be included in conducting inservice training.
9. All members of groups targeted for training should participate. Ideally, training should be perceived by participants as important enough to warrant full participation. Realistically,

incentives should be provided for total participation in inservice training. Financial rewards, course credit, or certificate-renewal credit might be offered. If strategies for voluntary participation fail, training should be mandatory.

10. Inservice training should be incorporated as a component of total school or district functions. Desegregation-related training should be tied to the central concerns of educators such as enhancing achievement and classroom management.
11. Training programs should be continuous. Simply providing workshops before schools open or infrequent training sessions is not likely to have much effect.
12. Little attempt should be made to directly change attitudes of participants. Preaching is ineffective and often dysfunctional to program goals. Training in behavioral responses is more effective.
13. Program goals should be well established and communicated to participants before training begins.
14. Programs on different topics should be coordinated and linkages between training areas should be established to provide continuity.
15. Teachers and administrators should participate in training programs together since teachers and administrators can reinforce each other to implement what is learned in training programs. Furthermore, teachers and administrators need to develop school-level norms that foster more effective desegregation-related practices.

RESEARCH ON SCHOOL DISCIPLINE

School discipline research seems to be important for three reasons. First, in at least some secondary schools, discipline problems are a major impediment to establishing good race relations and a satisfactory learning climate. Second, the issue of school discipline is uppermost in the public mind. Third, strategies that work to solve school discipline problems may prove to be the most effective mechanisms for reducing minority "push out" and suspension rates in desegregated schools.

Additional investment in large-scale victimization research would seem to be a reasonable though expensive first step. More analyses of the data contained in the Safe School Study (National Institute of Education, 1978) should be useful. Only one secondary analysis has been done thus far and more study is needed in order to exploit these data. A second study could be based upon the findings of the first study and would be able to go much further in identifying organizational characteristics of exemplary schools. Finally, a series of case studies of the most successful schools in the sample of either the first or second study would be very valuable. On the basis of data from 600 schools, Gottfredson and Daiger (1979) suggest some steps to more orderly schools. These proposals can serve as the basis for research hypotheses. The first holds particular importance for understanding the processes of social learning and democratic behavior.

1. Develop schools of smaller size, where teachers have extensive responsibility for and contact with a limited number of students in several aspects of their education, and where steps are taken to ensure adequate resources for instruction.

2. Promote cooperation between teachers and administrators, especially with respect to school policies and sanctions for disruptive behavior.
3. Develop school rules that are fair, clear, and well publicized, and apply the rules in ways that are firm, consistent, persistent and even-handed.

These prescriptions are relatively straightforward. If they do result in minimizing disorder, one might ask why these things are not now being done.

School desegregation usually results in the introduction to a school environment of students who come from different backgrounds and different neighborhoods. How students come to identify with the school and to deal with their needs to feel safe in what may be thought of as a foreign or contested territory appears to be an important question with important implications for sociological theory.

At the present time, one program of funding demonstration projects and evaluating them in a series of schools is underway. Additional such projects would make a good deal of sense. Earmarking some ESAA or Title IV funds for setting up administrative training programs for principals in desegregated secondary schools, with accompanying high-quality evaluation, might go a long way toward identifying particular strategies which principals can use to improve school climates. It is likely that the most effective of such programs will be ones which deal with school climate as a whole. If the results from the Safe Schools Study are correct (Gottfredson and Daiger, 1979), schools which are effective in reducing discipline problems may also be the schools which are effective in improving race relations and improving the learning climate. There apparently need be no

hard trade-offs between discipline, racial equality, and quality education. On the other hand, one can imagine conditions that lead to less disorder that stifle both student interaction and academic achievement. Thus, specifying more clearly the conditions under which these goals can be simultaneously realized is an important research priority.

There may be some developmental research necessary in areas which have nothing to do with school climate. For example, higher quality burglar alarms may not pay for themselves rather quickly in reduction of theft, which is a major problem in some schools, especially in the suburbs.

Studies of school discipline should also confront the problem of drug usage in schools. Here we are virtually at square one. We know very little about what schools can do to control drug usage. Are there administrative structures and methods of school organization or types of school curriculum which serve to create an environment in which students feel less need for drugs? We simply do not know the answer to that question.

DESEGREGATION AND HISPANICS

If present trends continue, there will come a time in the not too distant future when Hispanic public school students outnumber their black cohorts. In many districts, Hispanics outnumber blacks at the present time. For example, there are more blacks than Hispanics in only seven of the metropolitan areas west of the Mississippi River. There is very little empirical research on how desegregation affects Hispanic students or how the presence of a sizeable Hispanic population will affect the character of the desegregation process in both two race and three race districts.

There have been frequent calls for more research, but these admonitions have had little effect. One could seek to develop a full-scale research agenda that replicates the substantial literature on blacks. When one reviews the queries posed as important research questions by reviews of the literature on desegregation and Hispanics (cf. Uribe and Levinsohn, forthcoming; National Institute of Education, 1977), it appears that many of the issues raised are similar to the issues raised with respect to blacks. Thus, it may be possible to generate useful knowledge about desegregation and Hispanics by asking why we would expect Hispanics to be affected by or to affect the desegregation process any differently than blacks.

Answers to such a general question would allow us to use the existing research on blacks as appropriate and to focus on areas of hypothesized differences.

This approach would profit from theory but we can offer none. We assume that scholars concerned with ethnicity and cognitive development would have helpful insights upon which theory might be developed. Without the benefits of theory, it seems that the "potential differences approach" would give rise to the questions below:

1. What are the sources of opposition to and support for desegregation among Hispanics?
2. How do peer group relationship influences differ for Hispanics, blacks and whites?
3. Do Hispanics have different styles of cognitive learning?
4. What are the important sources of conflict among Hispanics, blacks and whites? How, in general, does the presence of Hispanics in "tri-ethnic" schools affect race relations?

5. Do Hispanic/white schools differ from black/white schools in the nature of student interaction and do such differences, if any, vary by the socioeconomic background of the respective ethnic or racial groups?
6. Do whites react differently, in terms of "white flight," to sending their children to school with Hispanics than with blacks? If so, on what assumptions are these different dispositions based?
7. Are Hispanics attracted to certain types of "magnet" schools? If so, why?
8. Do teachers have different expectations and biases with respect to Hispanics? If so, what are they?
9. Are the presumed benefits of desegregation for non-English speaking (NES) or limited-English proficiency (LEP) students constrained by the fact that younger children benefit most from desegregation but younger Hispanics are more likely to be NES or LEP?
10. Do the relative importance of family ties and differences in sibling relationships that characterize Hispanic students hold important implications for pupil assignment and parent involvement strategies?
11. What are the sources of a strong self-concept (in its various dimensions) among Hispanic students and how do these differ, if at all, from those most relevant to the self-concept of blacks and whites?

Beyond these questions there are a number of practical and policy issues that require further research.

1. Is there a market for bilingual education among English speaking students and parents? If so, for what types of bilingual programs?

2. Are different approaches to bilingual education more compatible with desegregation than others? What models for compatability exist?

3. Can teachers handle the complexity of bilingual education and desegregation?

4. What type of staff training is appropriate in bilingual desegregated schools?

Finally, it is very important that researchers avoid the temptation to assume that all Hispanic students have the same cultural, ethnic and other background characteristics. Some obvious distinctions to keep in mind are those involving social class differences, immigration status and generation. It is also likely that important differences exist among different Hispanic groups (e.g., Cuban, Mexican-American and Puerto Rican, etc.) in reaction to and effect on desegregation (cf. Crain and Mahard, 1980).

RESEARCH ON THE PRINCIPAL

A recurring thesis that runs through much of the research and is widely subscribed to by desegregation experts is the importance of the principal in desegregation. But, except for the not surprising notion that principals who are committed to desegregation and make that commitment known are likely to enhance the effectiveness of desegregation, very little is known about what principals do that makes a difference or what accounts for their relative effectiveness. Are some leadership styles and practices more effective than others? How can people be selected who have the potential to be good principals? How should principals be trained? What sort of support should a principal have once he or she is in charge of the school?

This is, of course, a topic much broader than simply the issue of desegregation, and the total amount of research that needs to be done is massive. It seems likely that the most cost-effective strategy is to encourage researchers and program development specialists dealing with school administration to include desegregation issues in their research and planning. This can be done in various ways--by joint funding of projects, by seeing to it that desegregation specialists are involved as reviewers for research projects focused on leadership, and, in general, by generating concern about the importance of desegregation issues in studies of school administration. Funding agencies can also encourage researchers looking at other substantive issues, related to desegregation, e.g., school discipline, race relations, achievement, to deal with the recruitment and training of school principals. In short, developing research which will allow us to see how principals in desegregated schools can be more effective may best be done by piggybacking--adding desegregation to other studies of principals, and adding principals to desegregation-related studies.

There is a massive amount of literature on administrative leadership which can be, and has been, applied to the role of the principal and, in particular, to the special problems schools confront when they desegregate. An immediate task is to see to it that reviews on this subject are thorough and as useful as possible. Beyond that, it would be quite valuable to do less structured research in which large numbers of effective principals are interviewed and observed.

The decision about which research questions to emphasize depends upon our best guesses about where intervention in the system will pay off and where additional research will have the largest impact upon that

intervention. We suspect that research on how principals should be hired may be the least effective. Private industry has invested a great deal in the question of how to select good administrators, and we doubt that paper and pencil tests can be dramatically improved. We also are unconvinced that civil service regulations governing principal selections will be easy to change. Some school districts dismiss principals whom they judge to be ineffective. Why some school systems are able to dismiss ineffective principals and others are not is an important question. This is an area where we know very little, and research here might be valuable. On the other hand, one can make the case that school systems lack the political will to replace ineffective principals, and that advising them on how to do so may be a waste of time.

The average school principal spends a great deal of time in graduate school. Most school systems offer significant financial incentives to principals who obtain advanced degrees. However, there is little evidence about the effects of graduate training on the effectiveness of practicing administrators. The highly competitive graduate school market may mean that some graduate schools will be anxious to develop programs which, by seeming more relevant to the needs of principals, will attract more students.

A promising place to intervene is in developing new structures within which principals work. The creation of peer support groups among principals, or the adding of additional office personnel to schools as a "quick fix," might enhance effectiveness. Such strategies deserve testing.

Finally, since desegregation requires that teachers adopt new practices and increase their adaptiveness, the principal in a desegregated school may require a different mix of functions than one in a more stable

situation. For example, principals may not be able to work closely with teachers in a facilitative leadership mode and, at the same time, be responsible for holding teachers accountable to external interests. This tension between the developmental (formative) and the judgmental (summative) functions of principals is a dilemma in most schools (Sarason, 1970), and may be particularly difficult in a desegregating system. This issue seems especially important to investigate, in part because knowledge about this matter would have implications for improving the management of all schools.

Enhancing the Productivity of Desegregation Research

In most cases, research agendas end with the final problem that their authors claim deserve further inquiry. We prefer to think that the task of improving the productivity of desegregation research goes beyond the problem of identifying important issues for study. Our need for more knowledge about desegregation is not only the result of the quality or quantity of research or of misplaced priorities. It is also that we have not used the resources available as effectively as one might. This is true of almost all subjects related to education. We see three general ways to improve the processes through which research is conducted:

1. Make better use of data collected by others, i.e., make more use of secondary analysis.
2. Develop theoretically grounded formats for conducting case studies and other inquiries that will facilitate comparative analysis.
3. Conceive of knowledge as the product of a research and development system in which different elements of learning are linked institutionally.

The Problem of Research Costs and the Utility of Secondary Analysis

The case study has the advantage of being inexpensive. Frequently, however, the full costs are concealed--a graduate student may be subsidizing the research through her/his money or unpaid effort, or a professor may be supported by his student's tuition while the student is in the field.

In many cases, surveys are subsidized. For example, studies of desegregation and achievement generally use test data gathered for other purposes, and studies of the affective aspects of desegregation are often subsidized by local school districts.

The low-budget character of school desegregation research has hampered study of the field. Too much of the work is isolated and noncumulative. Too much of it is done by students, often in small schools of education supervised by faculty with inadequate training in research methods.

One solution to research funding problems is secondary analysis. Large data sets, created for other purposes, can often be used. Most surveys are underutilized. The National Longitudinal Study of Educational Effects (NLS) is the exception, but this data set was intended for secondary analysis, and is widely publicized for that usage.

Many desegregation studies rely heavily on secondary data. For example, most studies of the effects of desegregation on achievement use secondary analysis of school records.

Often a single data set is inadequate, but can be supplemented with either a new survey or set of observations or can be combined with a second existing set. One outstanding example is 15,000 Hours (Rutter, Maughan, Mortimore, and Oustor, 1979), a study of the differential affect

of twelve South London secondary schools which uses the baseline data from a survey of physical and mental health of elementary school students. The health researcher saw the opportunity and decided to do a follow-up study of educational quality. Another good example is A Handbook for Desegregated Schooling (Forehand and Ragosta, 1976), a report based on observations in a number of schools which had previously been identified as superior in various surveys. When names of schools are available, administrative files can be used in this supplementary way. At the Johns Hopkins University's Center for Social Organization of Schools, the following data files have attached to the initial and follow-up student's records contained in the NLS.

1. Office of Civil Rights Racial Composition Data on the High School, the school districts, and aggregated data for all white and black students in the schools (from the Rand Corporation project).
2. 1970 Census data on other regions where subjects went to school, and on all later communities.
3. Data from the Higher Education General Institutional Survey on each college attended.
4. Office for Civil Rights Racial Composition data for each college attended, and data on the racial composition and mean income of every occupation held by a subject.

A researcher working with a good computation staff can do this sort of linkage at reasonable cost, and each linkage multiplies the utility of each data set.

Data sets can also be pooled with larger samples. The most important example of this is the aggregation of individual case studies to form a sample large enough for data analysis. This takes two forms: the

aggregation of small experiments or surveys of single treatments, called metaanalysis, and the coding of descriptive case studies, called the case survey method by Yin and Lucas (1974). Both methods require that variables be measured in each case study and the variables correlated across case studies. Both methods have been applied to desegregation research (Krol, 1979; Crain and Mahard, 1978). These methods are strongest when the variables in question are frequently and consistently measured. These studies draw attention, however, to the fact that most researchers have done a better job measuring dependent variables than they have in measuring school, teacher, and family characteristics that might explain desegregation outcomes.

Aggregation of cases can lead to two types of analysis. First, it can be used to simply compute means of variables across studies, or to compute means of correlations across studies, even though no one study's findings are definitive (e.g., percentages in all studies of desegregation and black achievement show an increase in scores due to desegregation). Second, it can be used to test new hypotheses by correlating variables across studies (e.g., white flight is greater when desegregation plans are phased in over several years; achievement gains are greater for students desegregated in the early grades).

In the later case, variables must be measured and reported, even if the author has no plans to use them in his own analysis, or else they be available for future case surveys. Since it is not possible to anticipate future hypotheses, this places a burden on writers of case studies to include a great amount of descriptive detail. It also means that writers of case studies should include material which seems irrelevant from their perspective--for example, political scientists should report achievement

data and educational psychologists should report political events. We return to this issue below.

It is also important for funding agencies to facilitate secondary analysis and case study aggregation. For example, neither of the two largest longitudinal studies of employment contains data on whether or not the respondents attended desegregated schools (The Parnes National Longitudinal Surveys and the Panel Study of Income Dynamics). These data could be collected retrospectively in future waves of the survey, if funding agencies make it clear that this variable is needed. The High School and Beyond study is a national longitudinal survey beginning with high school sophomores and the class of 1980 (National Opinion Research Center, 1980). An indefinite number of follow-up surveys to this study are planned. This data set contains information on school racial composition, but it is very weak on measures of other school characteristics. A survey of principals and teachers in this study could be done in subsequent years, and would provide data for several reports on a variety of topics (e.g., the effect of staff inservice training on minority drop-outs from high school). In addition, its very large sample size of 1,016 high schools and 58,728 students make it especially useful for linkage to other data files, such as an updated "Taeuber and Wilson" file described below.

The Emergency School Assistance Program (ESAP) evaluation is a cross-sectional survey of 400 elementary and 200 high schools. Its sample includes 30,000 students, 6,000 teachers, and 600 principals. This file has strong measures of racial attitudes and achievement. It contains some school characteristics data, but is weak in describing school academic programs. The ESAP is available from the National Opinion Research Center.

The three year evaluation of the Emergency School Assistance Act involves elementary schools, and contains an unusually rich amount of data. This file is available from the System Development Corporation, Santa Monica.

The Survey of Effective Desegregated Schools is a study of 80 high schools that overlap the ESAP sample. Some of these schools were surveyed in two consecutive years. This questionnaire is similar to the ESAP questionnaire, and merging the two studies is feasible. Case studies were also conducted in many of these schools. These data and studies are available from the Educational Testing Service.

Monitoring the Future (Johnston, Bachman, and O'Malley, 1980) and Youth in Transition (Timpane, 1976) are two panel studies of adolescents which are suitable for analysis of school factors. They are available from the Inter-University Consortium for Political Research and the Survey Research Center at the University of Michigan, Ann Arbor.

The Safe Schools Study (National Institute of Education, 1978) is a survey of junior high schools and high schools. It focuses on school violence and has excellent material on school climate.

A great deal of data on colleges and universities has been compiled in a number of surveys by the Higher Education Institute for Research, at the University of California, Los Angeles (Alexander Astin, Director).

The studies noted above relate school characteristics to student and graduate outcomes. One data set, compiled by Taeuber and Wilson (1979), is a survey of school desegregation plans combined with detailed census and school enrollment data for all large and medium-sized school districts in the United States. It is intended for analysis of white flight, but it

may be generally used to study the relationship of schools to housing, especially if linked with the 1980 census data.

This list of data sets is not exhaustive. It suggests that there is much important research that could proceed at very low costs.

Key Variables in the Study of Desegregation

As noted, the opportunities for comparative analysis of existing studies and for the structuring of new sets of data from existing files are constrained because the studies were undertaken for a variety of purposes and proceeded from different conceptions of the desegregation process. Indeed, the analytical framework of the research often is not presented.

It would be important, therefore, for researchers to agree on a common set of variables that they would report even when some of these variables are not central to their own analysis. The advantage of identifying such variables goes beyond their usefulness to other researchers. Our findings often lead us back to issues which we can only address if we have data not central to our original hypotheses. Moreover, the analytical framework implicit in the array of variables should enrich thinking about alternative explanations for the outcomes being studied.

Table I presents a list of questions and variables that seem important to many desegregation issues. Whether it is possible to include them in one's design and data gathering obviously depends on available resources and the theoretical or policy questions posed by the study.

TABLE I

Key Variables in the Study of Desegregation Processes and Outcomes

1. Who has been desegregated with whom?
   a. Racial/ethnic mix
   b. Social class of each group

c. Degree of tracking

2. What was the process by which desegregation initially occurred?
   a. How desegregation came about (court-ordered, voluntary, etc.)
   b. Duration of desegregation
   c. Amount of conflict
   d. Amount of community preparation
   e. Amount and type of in-school work with students on racial issues

3. What are the characteristics of the schools and classrooms being studied? While the list of school characteristics that might be studied is long, the number of factors which have been linked to student outcomes is much shorter. They include:
   a. Type of teacher inservice program
   b. Staff attitudes related to race
   c. Staff racial/ethnic composition
   d. Type of instruction; time on task for particular topics; nature of reward systems; opportunities for interracial interaction
   e. Extent and type of extracurricular activities
   f. Type and extent of remedial programs or special programs
   g. School suspensions and discipline policy
   h. Race of individual teachers (for classroom level studies)
   i. Experience of staff in desegregated settings
   j. School size and staff-student ratio
   k. The leadership role and style of the principal
   l. Parental involvement

4. What are individual characteristics of the students being studied?
   a. Sex
   b. Race
   c. Age
   d. Age of first desegregated experience
   e. Years in desegregated school
   f. Capacity for academic achievement
   g. Interracial contact outside of school

5. When the learning of individuals is part of the research, what is the student's family background?
   a. Learning resources available to the student
   b. Educational background of parents
   c. Level of support for achievement (or other student objectives)

6. What are the characteristics of the community in which school desegregation is taking place?
   a. Racially relevant history (including region)
   b. Information level and schools
   c. Racial composition
   d. Role of community leaders
   e. Degree of SES heterogeneity
   f. Economic vitality

7. Student outcomes:
   a. Achievement

b. Racial attitudes
c. Racial behavior
d. Sense of self-confidence, attribution of personal causation
e. Student victimization

8. Outcomes for alumni:
   a. College attendance, field chosen, completion
   b. Job-hunting process
   c. Racial contacts
   d. Housing choices
   e. Political participation

9. School system outcomes:
   a. New innovations
   b. Changes in administration
   c. Parent participation and pressure on schools
   d. School board election outcomes
   e. Tax and bond referenda outcomes

10. Community outcomes:
   a. Racial controversy over school issues
   b. Racial initiatives in non-school areas
   c. Desegregation in housing
   d. Impact of racial issues in non-school elections

11. Characteristics of the school and the school system affecting the implementation of desegregation plans and strategies. (See p. 28 for a listing of such variables)

The Need for a Research and Development System

Kolb (Kolb, Ruben, and McIntyre, 1971) has conceptualized the learning process for individuals as a cycle which is initiated by engaging concrete experiences, dilemmas or problems which the individual is motivated to consider. These data become the object of reflection and analysis. A third stage in the cycle involves the derivation from such analysis of concepts and generalizations. The fourth step in the cycle is the testing of the implications in new situations. Such tests, in turn, provide concrete experiences, or new data, which begin the cycle again.

This everyday process is similar to the scientific method employed in much experimental laboratory research. But this learning cycle has few counterparts in the social sciences where field research is required

before we are satisfied that our knowledge is sufficiently reality-tested to use as a basis for public policy. In other words, the learning cycle for social science inquiry usually is truncated and responsibility for performing different roles in the process of knowledge development is assigned to different institutions or to different groups within institutions with no explicit linkages between them. For example, universities are often organized so that those who do "basic research" and are responsible therefore for conceptualization, are housed in different places, have different reward systems and higher status than those who do applied research or who assist in policy development. The propensity of research universities to provide low rewards for policy-related research and for program evaluation activities has meant that these functions have been increasingly taken over by contract research firms. These firms, while often quite sophisticated, have no incentives to encourage their researchers to be concerned with theory development. Moreover, the cost of field based research is often so great that no resources are available for replicating studies much less testing newly developed hypotheses. As a result, like the individual who gives short shrift to one or more stages of the learning cycle, as a society we learn very slowly and largely without the benefit of well developed and tested conceptualizations that would facilitate knowledge transfer from one problem to another.

Within its various agencies and programs, the federal government has the elements of a learning cycle. If we think of basic or applied research leading to the development of products or programs which are demonstrated (or tested) and then evaluated, we have, when we feed back the results of the evaluation to the reconsideration of theory explicit or implicit in the research stage of the process, a learning cycle.

Unfortunately for the development of knowledge, various stages in the process are the responsibility of different agencies whose work is seldom coordinated.

The newly developed Office of Educational Research and Improvement (OERI) in the U.S. Department of Education has within its organizational boundaries all of the components of this learning cycle (although the evaluation of existing programs rests elsewhere in the Department). OERI could structure a research and development process, or, by funding external research consortia, it could link the different stages of the learning process. Such a strategy, however, would require extraordinary interagency cooperation and losses of organizational autonomy. Moreover, both universities and the contract research industry seem likely to resist such efforts.

There are some examples of merger of the several functions described above within one institution. The Institute for Research on Poverty at the University of Wisconsin-Madison, in its research on various strategies for income maintenance, demonstrates the payoffs to both theory and policy that can come from linking different learning activities we've been discussing. Another example is work done at the Center for the Social Organization of Schools in developing and testing concepts of cooperative learning, though in this case the theory development side has not been as strong as in the Wisconsin situation.

Conclusion

We have two final admonitions to offer and one more general question to pose. First, as we have implied throughout this paper, one should bear in mind that desegregation is not a laboratory treatment, a sterile and standardized pill whose effect should always be the same. Rather than

ask, "does desegregation work?", it is more appropriate to ask questions like, "under what conditions does a particular kind of desegregation strategy affect a particular kind of student or adult with respect to a particular outcome?"

Second, answers to questions raised by desegregation will not be found only in the desegregation research. Desegregation "specialists" have seldom engaged their generalist colleagues in the issues being studied. More attention to theory would help in the application to desegregation of research on teaching and learning, peer influence, ethnicity, social conflict, leadership, social mobility, political participation, organizational behavior, the instruction of handicapped children, and other extensively studied areas of inquiry. Desegregation needs to be seen in more conceptual terms and as an area of research which not only is informed by research on a broad range of topics, but also can provide insight to many enduring questions about education, human development and social institutions. Moreover, the fact that research on desegregation has often been conducted in isolation from other research on education and social change, means that little of the knowledge gained from such research seems to inform policy and inquiry not directly focused on desegregation. For example, the experience of response to magnet schools appears to have relevance to the efficacy of vouchers and tuition tax credits.

Finally, we may well ask how future demographic and political conditions will affect the process of desegregation and the salience of particular issues, and of desegregation itself. Some of the types of issues raised by asking this general question are:

1. What is the impact on desegregation of different birthrates among Hispanics, blacks and whites and among different income groups?
2. How do interest rates, public and private costs, and the "gentrification" of some central cities affect desegregation?
3. How might public policies affecting private school significantly affect white and middle class flight?

While the issues that dominate concern over desegregation will almost surely change, it seems unlikely that desegregation will cease to be a significant concern of public policy. School districts are in constant flux; they are desegregating and resegregating on a continuing basis. What does seem probable is that the values embodied in demands for desegregation will be increasingly challenged not so much with respect to their legitimacy but with respect to their centrality. This, in turn, may lead to philosophical and empirical inquiry examining presumed tradeoffs among social values and different public policies. This inquiry may cause us to question some basic myths which have sustained both the advocates and opponents of desegregation. It could also lead to more coherent and effective public policies. Our reading of the existing research suggests that in most contexts many of the apparent conflicts between desegregation and other values can be resolved and that the changes in education implicit in these resolutions will result in an improved capacity of schools and other community institutions to foster both equity and excellence.

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